

# INTERNATIONAL SEARCH REPORT

Intern: ai Application No

PCT, US2004/029387

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C23C14/56 C23C16/44 B08B7/00 C23C14/34

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 C23C B08B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC, COMPENDEX

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/042192 A1 (TANAKA KEIICHI ET AL) 11 April 2002 (2002-04-11) paragraphs [0009] - [0013] -----	1-3
A	US 6 428 663 B1 (MOSTOVYOV ROMAN ET AL) 6 August 2002 (2002-08-06) column 3, lines 7-26 -----	1,5
A	US 5 505 749 A (KIRSCHNER ET AL) 9 April 1996 (1996-04-09) column 2, line 60 - column 4, line 38 -----	5,11-16

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

14 February 2005

31.05.05

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

In international application No.  
PCT/US2004/029387

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-18

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-18

A method of treating a component of a deposition apparatus, the component having a first hardness, by bead blasting with particles having a greater or equal hardness than the first hardness, the particles consisting essentially of one or both of metal alloy and elemental metal.

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2. claims: 19-56

A method and a corresponding product of forming a target/backing plate construction, providing a target, a backing plate and an insert, all having different compositions from each other, bonding the target, the backing plate and the insert in a configuration in which the insert is positioned between at least a portion of the target and the backing plate; the configuration having a surface which extends along a portion of the target and a portion of the insert; and forming a particle trapping region comprising a pattern of curved projections which extends along the portion of the target, the curved projections forming cavities, at least some of the cavities opening laterally along the target/backing construction.

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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/029387

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 2002042192	A1	11-04-2002	JP 2002115068 A	19-04-2002
US 6428663	B1	06-08-2002	NONE	
US 5505749	A	09-04-1996	US 5509971 A AU 3599893 A CA 2122361 A1 EP 0631527 A1 JP 2518107 B2 JP 7503670 T KR 149479 B1 WO 9318863 A1 US 5439493 A	23-04-1996 21-10-1993 30-09-1993 04-01-1995 24-07-1996 20-04-1995 15-10-1998 30-09-1993 08-08-1995